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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,244	06/05/2006	Kai Dolling	Muller-52	8017
39703	7590	05/04/2011	EXAMINER	
C. JAMES BUSHMAN 5851 San Felipe SUITE 975 HOUSTON, TX 77057			BOS, STEVEN J	
			ART UNIT	PAPER NUMBER
			1736	
			MAIL DATE	DELIVERY MODE
			05/04/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,244	DOLLING ET AL.	
	Examiner	Art Unit	
	Steven Bos	1736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11 and 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The information disclosure statement filed February 16, 2011 fails to comply with 37 CFR 1.97(c) because it lacks the fee set forth in 37 CFR 1.17(p). It has been placed in the application file, but the information referred to therein has not been considered.

Claim 15 is objected to because of the following informalities: in line 10, "substituted" should be --substituent--. Appropriate correction is required.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4,6-11,14-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claims 1,14,15,16, "to provide a boehmitic alumina to convert to an alpha phase only at a temperature of above 1350°C" is new matter.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4,6-11,14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch US 3152865 in view of Noweck US 6773690.

Koch teaches a process of making boehmite alumina by hydrothermal aging of an aluminum alcoholate (Column 1 Lines 35-45) in the presence of a chelating agent comprised of an organic component containing multi carboxylate ions or a polycarboxylic radical (Column 3 Lines 15-29). The chelating agent is generally used in an amount

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of about 0.5% to 3% of the dry alumina (Column 2 Lines 44-45). The pH of the mixture is greater than 7, preferably between 8 and 9.5 (Column 2 Lines 35-40).

Koch does not teach that the aging process is performed at temperature between 120 and 150°C.

Noweck teaches a process of making boehmitic aluminas, wherein a metallic or nonmetallic oxide or oxide hydrate is present in a hydrothermal aging process, requiring an aging temperature of between 40 and 240°C (Column 3 Lines 5-13).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of Koch including the use of a metallic or nonmetallic oxide or oxide hydrate in the hydrothermal aging process requiring an aging temperature of between 40 and 240°C in view of the process of Noweck. The suggestion or motivation for doing so would have been to make crystalline boehmite aluminas (Column 3 Lines 5-13).

Koch does not expressly state that the hydrolysis is carried out at a temperature of from 50 to 95°C.

Noweck teaches that hydrolysis of aluminum alkoxides may be performed at a temperature generally between 60 to 100°C (Column 2 Lines 35-40).

At the time of invention it would have been obvious to one of ordinary skill in the art to perform the hydrolysis step of Koch (Column 1 Lines 34-44) at a temperature between 60 and 100°C in view of the teaching of Noweck. The suggestion or motivation would be to provide a temperature to the process required by Koch but not disclosed.

With respect to claim 2, the chelating agent may be added in an amount of about 0.5 to 2%, which would include at least 0.4%.

With respect to claim 3, the chelating agent may be oxalic or tartaric acid (Column 3 Line 25).

With respect to claim 4, Noweck teaches that hydrolysis of aluminum alkoxides may be performed at a temperature generally between 60 to 100°C (Column 2 Lines 35-40).

With respect to claim 6, Noweck teaches a process of making boehmitic aluminas wherein a metallic or nonmetallic oxide or oxide hydrate is present in a hydrothermal aging process requiring an aging temperature of between 40 and 240°C (Column 3 Lines 5-13).

With respect to claim 7, Koch teaches the alumina content may be 13% (Example 1).

With respect to claims 8-11, the product obtained by the process of Koch in view of Noweck would be expected to possess these product limitations since the process of making the product is obvious.

With respect to claim 14, use of alumina as a catalyst carrier is one of the most common uses of alumina.

Applicant's arguments filed February 16, 2011 have been fully considered but they are not persuasive.

Applicant argues that all of the claims contain the limitation that the hydrolysis is carried out at a pH above 9.5.

However instant claim 15 does not require this limitation.

Applicant argues that neither Koch nor Noweck teaches that in order to obtain aluminas according to the present invention, the pH during the hydrolysis step must be maintained at above 9.5.

However the taught pH of 9.5 is not patentably distinct from that instantly claimed. See MPEP 2144.05(I).

The 1.132 Declaration of Mr. Kai Dolling is not persuasive as it is not commensurate in scope with the instant claims. The Declaration is limited to the use of tartaric acid in the process whereas instant claims 1-4,6-11,14,15, are not so limited and instant claim 16 requires an amino substituent; tartaric acid is not amino substituted.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is 571-272-1350. The examiner can normally be reached on M-F, 9AM to 6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven Bos
Primary Examiner
Art Unit 1736

sjb

/Steven Bos/
Primary Examiner, Art Unit 1736